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COVID-19

Lessons From a Global Pandemic

COVID-19 Takeaways for IPs



Disinfection/Sterile Processing

Hospitals Race to Build Negative Pressure Rooms

Advanced Technology

Telehealth Steps Up As COVID-19 Steps In

Long-term Care Facilities

COVID-19 Spotlights Flaws In Long-Term Care System

Personal Protective Equipment

Just-in-Time Fit Testing Helps Hospitals Prepare

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Alternate Methods of Mask Decontamination



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COVID Lessons Will Echo for Years to Come

Years from now, when we look back on the coronavirus disease 2019 (COVID-19) pandemic, my hope is it will have served a few purposes. First and foremost, COVID-19 highlights the unimaginable bravery and heroism of our frontline healthcare workers to whom we are eternally grateful.

Second, COVID reinforces the fact that we should always be operating on the "it's not a matter of if, but when" mantra in terms of pandemic preparedness, personal protective equipment stockpiles, and outbreak response.

Lastly, it inspires a renewed appreciation and gratitude for infection prevention and control. These specialists are likely to be in high demand as healthcare facilities, ranging from acute care hospitals to long-term care, navigate a "new normal" and reevaluate their standards of disinfection, sterile processing, and hand hygiene protocols.

This issue of *Infection Control Today*® focuses on those and more lessons from the COVID-19 pandemic. Our cover story on page 16, written by Saskia v. Popescu, PhD, MPH, MA, CIC, a nationally known infection prevention expert and a member of *ICT*®'s Editorial Advisory Board, details lessons learned. "COVID-19 has been a wake-up call for public health and healthcare alike. For those leaders in healthcare, as they continue to respond to COVID-19, even after the dust settles there will be things that should be considered," Popescu writes.

Another takeaway sparked by COVID-19—the enhanced reliance on telehealth and the availability of telemedicine across specialties. "...The [COVID-19] pandemic has wrought changes in everything from routine care to triage. Between erratic supplies of personal protective equipment for practitioners and patients who don't want to risk their health, telemedicine is proving a boon," Jan Dyer writes on page 18.

Elsewhere in this issue, we delve into the operability of large-scale negative pressure wards (page 24), just-in-time fit testing during pandemics (page 22), and infection prevention gaps in long-term care facilities (page 28).

Here's to moving out of the dark of COVID-19 and into the light of long-lasting lessons learned.

Thank you for reading,

Mike Hennessy, Sr
Chairman and Founder

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personal protective equipment

Face Shields, Universal Masking Called Best Way to Contain COVID-19

By Frank Diamond

It would be expensive. It would not be a perfect barrier. Despite some drawbacks, investigators with Duke University Medical Center argue in a recent viewpoint in *Infection Control & Hospital Epidemiology* that it's time for hospitals to consider universal masking.¹ That could be done with personal protective equipment (PPE) that's usually utilized (barrier gowns, N95 respirators), but shields would be ideal.

Face shields would not be hindered by the circumstances that make face masks sometimes problematic. "Face shields provide better coverage of the face, as compared to masks, thus reducing the risk of self-contamination," investigators write. "Additionally, face shields are durable, can be cleaned and reused repeatedly. Given their simpler design, durability, and reuse potential, face shields are less likely to face shortages like face masks. Additionally, face shields do not impede facial nonverbal communication, can be worn concurrently with other face/eye protective equipment and do not impact vocalization."

Face shields aren't perfect, however. The absence of a good seal around the face could allow aerosol penetration. Also, they might cause fogging or glare. Further study into the utility of face shields as a way to



implement universal masking needs to be done, they encourage, but add that shields do seem to offer "a promising solution in a time of critical mask shortages."

Investigators note that COVID-19 has forced some hospitals to expand their infection prevention measures like visitor restrictions, hand hygiene, and employee testing with universal masking for all healthcare professionals (HCPs). That means that HCPs must wear some sort of face mask at all times while on hospital premises.

"Future studies are needed to examine

the frequency of viral contamination of masks worn for long hours or multiple shifts, as are studies needed to compare rates of healthcare-associated SARS-CoV-2 in hospitals and long-term care facilities that do and do not utilize universal masking policies," they conclude. They encourage "exploring other approaches such as universal use of face shields...." [\[1\]](#)

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healthcare-acquired infections

Nurse Role Becomes Even More Important in the COVID-19 Pandemic

By Frank Diamond

The title of a preprint study in the *Journal of Infection* could act as a clarion call in the era of COVID-19: "The Economics of

Infection Prevention: "Why It Is Crucial to Invest in Hand Hygiene and Nurses During the Novel Coronavirus Pandemic."¹

The authors note that the World Health Organization (WHO) designated 2020 as

the Year of the Nurse and the Midwife, and also pointed out that there is a shortage of 9 million nurses and midwives in the world. The emergence of COVID-19 has underscored the crucial role nurses play

in healthcare. Infection prevention and control (IPC) measures keep the nurses and other healthcare workers (HCWs) on the job.

"In addition to being a population that is not easily replaceable once taken out of the workforce, an increased strain on the staffing levels of HCWs also has a negative effect on patient outcomes," the authors write.

All HCWs face exposure to COVID-19, "but nurses are evidently at the frontlines with the most patient contact. They are the ones responsible for daily patient care, while simultaneously being responsible for protecting patients against HAIs [healthcare-acquired infections].

"If their IPC practices, especially their hand hygiene, are suboptimal, nurses become a source of transmission of infections between patients and to themselves."

HAIs were a pandemic "in and of themselves" even before COVID-19, the authors note.

They cause more deaths each year than tuberculosis, malaria, and AIDS combined. In the United States, HAIs affect about 1.7 million people each year, accounting for about 99,000 deaths.

They cost hospitals anywhere from

It's perhaps easy to forget that before COVID-19, healthcare-acquired infections were a pandemic "in and of themselves," the study notes.

\$35.7 billion to \$45 billion a year.

"Hand hygiene with alcohol-based handrub is globally recommended as one of the most effective and low-cost procedures against SARS-CoV-2 cross-transmission," the authors write. "It is well known that improving hand hygiene compliance among HCWs reduces HAIs in hospital settings.

"The economic implications of successful hand hygiene improvement have long been established. It has been demonstrated that these programs cost less than 1% of the HAI-related costs, making them relatively cheap and unequivocally worth investing in."

Culture Counts

Good hand hygiene depends on good hospital systems that allow easy access to supplies, and organizes, allocates and trains nurses in a culture that values hand hygiene.

"Constant exposure to patients with

COVID-19, a lack of supplies such as adequate personal protective equipment in many hospitals, fatigue and stressful work environments put nurses at a higher risk of acquiring or transmitting the virus," the authors write.

"Infected HCWs reduce the workforce of well-trained HCWs that are able to provide sufficient care for their patients, which in turn reduces the hospitals' ability to deal with an outbreak."

Usually, studies conclude with a "more study is needed" line, but not this time. Quoting the WHO, the authors write: "Clean and safe care starts with investing in our nurses, and the message to policy makers should be clear: 'increase nurse staffing levels to prevent infections and improve quality of care. Create the means to empower nurses and midwives.' Doing any less wouldn't make human or economic sense."

Subject matter that *Infection Control Today*® would definitely like to pursue once the COVID-19 pandemic ebbs. **ICT**

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environmental services

What's Cooking? Face Mask Decontamination via Rice Cookers to Ward Off COVID-19

By Frank Diamond

Medical investigators throughout the world are cooking up ideas that will hopefully put an end to the coronavirus disease 2019 (COVID-19) pandemic. Among those is an idea straight from the kitchen thanks to investigators with the Louis Stokes Cleveland VA Medical Center.

In a preprint article in the *American Journal of Infection Control*,¹ the investigators found that rice cookers—an appliance

found in kitchens all over the world—appear to successfully decontaminate cloth masks, and they urge that further studies be conducted to see whether the rice cookers can also decontaminate surgical and N95 masks as well.

"Given the recommendation that cloth face masks be worn in public settings, steam treatment using these readily available kitchen items could provide safe and effective decontamination of cloth masks," the investigators conclude.

One of the questions investigators wanted to answer: Which is better at decontaminating masks, moist or dry heat? They studied surgical face masks, 3M 1860 N95 respirators, and masks made of fabric that were being distributed to visitors and personnel who were not involved in direct patient care at a Cleveland area hospital. The test organisms were a clinical isolate of methicillin-resistant *Staphylococcus aureus* (MRSA). Also included, a single-stranded RNA virus

bacteriophage MS2.

The article states that "10- μL aliquots containing 10 colony-forming units (CFU) or plaque-forming units (PFU) of the test organisms suspended in 8% simulated mucus were inoculated onto 1-cm areas on both the outer or inner surfaces of the respirators or face masks."

The inoculated masks or respirators were put in a steamer for about 13 to 15 minutes, "including 8-10 minutes of heating and 5 minutes of steam. For comparison, inoculated masks or respirators were subjected to dry heat at 100°C for 15 minutes in an oven...."

The inoculated sections of the face masks and N95 respirators were then vortexed for 1 minute "in 1 mL of phosphate-buffered saline with 0.02% Tween and serial dilutions were plated on selective media to quantify viable organisms."

The tests were performed in triplicate. Log₁₀ reductions were compared with untreated controls. A reduction of 3-log₁₀ or greater in recovery of organisms from the masks or respirators was determined to be effective decontamination.

One of the questions investigators wanted to answer: Which is better at decontaminating masks, moist or dry heat?

They studied surgical face masks, 3M 1860 N95 respirators, and masks made of fabric that were being distributed to hospital visitors and personnel.

Answer? Moist heat.

Investigators wrote that "the steam treatment resulted in a greater than 5 log₁₀ reduction in bacteriophage MS2 and MRSA applied to the outer and inner surfaces of the face masks and respirators, whereas dry heat at 100°C for 15 minutes did not result in a greater than 3 log₁₀ reduction of either organism at any of the

Q & A

A Conversation With Curtis J. Donskey



Infection Control Today[®] reached out to the study's corresponding author, Curtis J. Donskey, MD, an infectious disease physician and researcher at the Louis Stokes Cleveland VA Medical Center, in Cleveland, Ohio.

ICT[®]: What motivated this study?

Curtis J. Donskey, MD: There are some previous studies that have looked at steam generated by heating water in a microwave for decontamination of respirators. We are not aware of any reports of steam treatment of masks or respirators with common kitchen rice cookers or steamers. However, we communicated with someone in Taiwan who told us that this is a common practice there.

ICT[®]: The study says that more tests need to be done to see whether rice cookers can decontaminate surgical masks and N95 respirators. But your results suggest that they may be able to. What are the plans for future research?

Donskey: The study was published as a Research Letter in *AJIC*. We are conducting more studies to assess the impact of repeated steam treatments on respirator or mask performance and to assess whether shorter treatment times can also be effective.

ICT[®]: How involved are you personally in the battle against COVID-19? Are you dealing with patients?

Donskey: Yes, I am providing care for COVID-19 patients and working with our infection control team and hospital administration to ensure that processes are in place to protect patients and personnel.

ICT[®]: Rice cookers. Is there a chance some other kitchen appliance might also work?

Donskey: Yes, we think that any kitchen steamer would work well.

inoculated sites on any masks or respirators. No visible changes were observed in any of the masks or respirators after 5 cycles of decontamination."

Put simply, rice cookers—with moist heat—can decontaminate face masks; dry heat at the same temperature didn't do as well, although further studies are needed to evaluate how well a rice cooker can decontaminate surgical face masks and N95 respirators.

In terms of practical applications, one cannot get much more practical than a rice cooker, as the investigators note. And when it comes to COVID-19, innovation is key, with healthcare facilities being "forced to adopt strategies to extend or reuse personal protective equipment (PPE) such as N95 filtering facepiece respirators

and surgical face masks."

Cloth face masks are often worn many times between laundering. Ultraviolet light and hydrogen peroxide vapor have been tried. "However, sending used respirators to a central processing facility for hydrogen peroxide vapor treatment is likely to be labor-intensive and costly and ultraviolet light is suboptimal for decontamination of soft surfaces," the article states. "There is an urgent need for simple and widely available methods to decontaminate PPE, including cloth masks." **[CT]**

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personal protective equipment

Don't Be Fooled: CDC Website Posts Photos of Counterfeit N95 Masks

By *Infection Control Today*® Editorial Staff

Charlatans rarely miss a chance to take advantage of a crisis, and that's presently playing out amidst the COVID-19 pandemic. People are selling counterfeit N95 respirators, warns the US Centers for Disease Control and Prevention (CDC). The agency posted photos of dozens of counterfeit N95 masks on its website recently. You can tell at a glance that they're counterfeit because the CDC helpfully draws a red slash through photos of the fakes. The real McCoys (which are not pictured on the site) are clearly marked as being approved by the National Institute for Occupational Safety and Health (NIOSH), the CDC says.

"Counterfeit respirators are products that are falsely marketed and sold as being NIOSH-approved and may not be capable of providing appropriate respiratory protection to workers," the CDC warns. "When NIOSH becomes aware of counterfeit respirators or those misrepresenting NIOSH approval on the market, we will post them here to alert users, purchasers, and manufacturers."

According to the CDC, here are the signs that a respirator might be counterfeit:

- No markings at all on the filtering facepiece respirator (FFR).
- No approval (TC) number on the FFR or headband.
- No NIOSH markings.
- NIOSH spelled incorrectly.
- Presence of decorative fabric or other decorative add-ons (e.g., sequins).
- Claims of approval for children (NIOSH does not approve any type of respiratory protection for children).
- Filtering facepiece respirator has ear loops instead of headbands.

Look for a NIOSH-approved label on the packaging or on the users' instructions. Additionally, an abbreviated approval is affixed to the FFR itself. "NIOSH-approved FFRs will always have one of the following designations: N95, N99, N100, R95, R99, R100, P95, P99, P100," the CDC states. Verification of the product can be found on the NIOSH Certified Equipment List (CEL) or the NIOSH Trusted-Source.

Lives are at stake and counterfeit N95 respirators make things worse for infection preventionists and others caring for COVID-19 patients.

The CDC is not the only one keeping an eye on just how N95s are being sold. Sometimes counterfeit peddlers of face masks will attempt to piggyback on the makers of N95s that do meet NIOSH guidelines.

For instance, 3M recently sued New Jersey-based Performance Supply LLC, accusing it of trying to sell 3M face masks at 500% to 600% above 3M's marked prices to New York City officials; allegedly trying to profit at the epicenter of COVID-19 suffering, in other words.

The CDC warns that "Medicos is selling an N95 respirator using the Moldex approval number and label without Moldex's permission. Medicos is not a NIOSH approval holder or private label holder."

The CDC's warnings are jargon free; they could be points being made by a friend. Examples:

- This product is not NIOSH-approved. Look at the markings on the front. The logo is wrong, there is no approval number.
- This product is not NIOSH approved. No NIOSH logo or approval number on the face of the product.

And this warning is a particular favorite of the editors at *Infection Control Today*®.

"This is an example of a counterfeit N95 Respirator that was brought to NIOSH's attention," the CDC writes. "While the TC number and private label holder are valid, this unapproved unit can be identified by the misspelling of NIOSH on the front of the respirator."

It's spelled "NISH."

And the point being made is crucial. Lives are at stake and counterfeit N95 respirators make things worse for infection preventionists and others trying to care for COVID-19 patients. If you suspect that something being billed as an N95 is fake, report it to the CDC. **ICT**



personal protective equipment



Just-in-Time Fit Testing Allows for Rapid Response During Pandemics Like COVID-19

By Rebecca Leach,
RN, BSN, MPH, CIC



The topic of appropriate personal protective equipment (PPE) is continuously in the media and trade articles thanks to the COVID-19 pandemic. PPE supply and use is a daily topic for those who work in infection prevention and one of the main tools used to prevent the spread of infection in healthcare facilities. The use of N95 respirators, and their equivalent, is currently a subset of the PPE focus that has many facilities scrambling to provide the best PPE available to staff and keep their stock in hand.

Respiratory protection programs mandated by the Occupational Safety and Health Association (OSHA) include the process of training, providing medical clearance, and fit testing for respirator use in healthcare facilities. These programs are often run by an occupational or employee health department in collaboration with safety, emergency management, infection prevention, and human resources. Several requirements include ensuring that health care providers (HCP) know how to use respirators, how to don and doff appropriately, when to use the respirator, and how to maintain their PPE to maximize the lifespan of that respirator.

Traditionally, these are accomplished via an annual fit test through occupational health, which is done for HCPs who may have contact with infectious agents that require airborne precautions (ie, tuberculosis, measles, chicken pox).

Typically, the fit testing depends on the annual

anniversary of hire date, department-specific dates for testing, or some other pre-determined timeframe to have staff come through on a scheduled basis so as to not overwhelm the occupational health department. In a pandemic situation of a respiratory illness, when many staff members need to have quick access to appropriate respirators, the process for fit testing has to change to a different model of operationalization.

Rapid Intervals

Just-in-time (JIT) fit testing allows a healthcare organization to offer evaluation, training, and fitting of HCPs during rapid intervals, as needed, based on specific patient care assignments. Many institutions have JIT fit testing as part of their plans for pandemic influenza or Ebola preparations. In order to implement JIT programs, many key components need to be considered. Also, in March 2020, OSHA issued a temporary guidance that allows healthcare facilities to suspend annual fit testing due to shortages, as long as staff have a prior fit test with the same model respirator.¹ This allows for JIT fit testing to be accomplished for staff in a rapid pace needed to keep up with patient care needs.

Another way to better implement JIT fit testing is to utilize qualitative test methods versus quantitative. The more commonly used qualitative method involves the use of a sweet, saccharin solution sprayed into a hood while the HCP wears the respi-

rator. If the HCP can taste the sweet solution, then essentially, they fail the fit test for that respirator.

Quantitative fit testing involves modifying the respirator to allow access for a sampling port, therefore damaging the respirator so that it cannot be used after the fit test. Again, in recognition of PPE shortages (so glaringly revealed during the COVID-19 pandemic), OSHA recommended using qualitative fit testing over quantitative to conserve respirators and making JIT more feasible. OSHA did so in the same March 2020 temporary guidance.

Occupational health programs historically control the fit testing process. However, in an emergency situation, occupational health would likely not have the capacity to offer JIT fit testing at all times for HCPs, therefore a cadre of staff need to be trained into the roles and assigned a schedule to have the service available 24/7.

Occupational health departments can train staff, make sure they are certified to teach the process, thereby making a labor pool of fit testers available in the facility for the times and days needed. Often in pandemics—and, again, as we've seen recently with COVID-19—job roles need to be adjusted, so there may be staff from low work-load areas that comprise the JIT fit testing team.

Having this resource staffed consistently meets the needs of HCPs and can reduce the anxiety about finding the appropriate size mask in a moment. Another method of training staff for fit testing that has been shown to be effective is through a video.² If occupational health is not available, or there are a large number of locations and staff that need training, having a video option for training with a competency would be a reasonable alternative.

Info on Badges

Part of the JIT process needs to include a tracking mechanism for staff. Having a searchable database of all the sizes that staff have fitted would be a helpful tool. Along with a database that is kept by the JIT program staff, develop a way for staff to also track their own mask types and sizes that they can fit. This can be accomplished by having a sticker or badge accessory so that staff will always have it written on their badges and available whenever at the facility. During pandemic situations, the usual masks that an organization uses for annual fit testing and patient care may not be available, so new products will be brought in regularly as alternatives. Having a log of which sizes work for HCPs and also a document that shows comparable products that tend to be similar in size is helpful as well to decrease guessing and

wasting masks that may not fit staff.

Similarly, working with logistics support to review the options available for respirators, tracking usage and days on hand, projecting volumes, estimating how a surge of a certain percentage would impact supply, and reporting those data regularly creates a successful program. Other supplies needed for JIT include the hoods or test kit components and the saccharin or bitter testing solution. During pandemics, these supplies can also be in high demand and integrating those into the tracking helps prevent any unforeseen delays in JIT testing.

Part of the JIT process is to prioritize or delineate the HCPs who would need to use respirators. This can be accomplished by looking at job roles and departments that would interact with patients who require airborne precautions and tasks that are done by the various job roles. Cross training staff, such as having nurses perform phlebotomy or administer nebulizing treatments, can limit staff who need to interact with patients in airborne precautions when PPE are in demand.

Make Adjustments

Also, adjust when some processes should be implemented. For instance, only have the room cleaned by house-keeping after discharge. In addition, wait the allotted time for appropriate air exchanges in the room so that environmental services staff won't need to don N95 respirators to perform their duties. Also, cohort patients and staff so that the JIT fit testing can be focused on that select group who will have the most need.

The use of JIT fit testing is essential to providing HCPs with the appropriate PPE during outbreaks, pandemics, and emergent respiratory illness disasters. Part of the planning for emergency preparedness can involve developing JIT guidelines and program guidance so that can be used in training and be available when the next outbreak occurs. [ICT](#)

Just-in-time fit testing allows a healthcare organization to offer evaluation, training, and fitting of HCPs during rapid intervals, as needed, based on patient care assignments. Many organizations make JIT fit testing part of pandemic preparation.

REBECCA LEACH, RN, BSN, MPH, CIC, has been an infection preventionist since 2010, with a background in nursing and epidemiology. Leach, a regular contributor to *Infection Control Today*®, currently works at a healthcare system in Phoenix that includes 5 hospitals and more than 100 outpatient treatment centers.

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personal protective equipment

Q&A: Lisa Brosseau, ScD

Cloth Masks Are Useless Against COVID-19

Lisa Brosseau, ScD, is a nationally recognized expert on infectious diseases. Brosseau taught for many years at the University of Illinois at Chicago. She may be retired from the university, but she's not retired from teaching. She recently cowrote an opinion piece¹ that drew a lot of notice: In it Brosseau argues that cloth masks offer no protection from COVID-19. As one might imagine, it drew a lot of attention and caused a fair amount of controversy. She recently sat down with *Infection Control Today*[®] to talk about her strong feelings about cloth masks and that data she used to reach her conclusions.

***Infection Control Today*[®]: What made you decide to write the piece?**

Lisa Brosseau: The article started out with the goal of trying to look at the literature related to cloth masks in healthcare. And then it got expanded way beyond that to cloth masks and surgical

masks and respirators for healthcare and for the community. It was much more comprehensive than I expected it to be. Took me a little longer to write but at the end of the day, I was looking at cloth masks and surgical masks and respirators from several points of view. First of all, for healthcare and community, but also do they work as source control? Or do they work as personal protective equipment? Or both? And at the end of the day, cloth masks in my opinion don't work in any form. They aren't very good at source control, except for maybe very large particles. And they should not be used in healthcare settings for a number of reasons. Surgical masks, I decided, based on the literature, might have a role as source control for people who have symptoms. Say if they're staying home and they have some symptoms. They shouldn't be something you'd wear if you have symptoms going out into the public

because you shouldn't be going out into the public service. But it's a good option for patients to wear in healthcare settings...to diminish the viral load. Basically, decrease the amount of particles, infectious particles in the air in a healthcare setting. So, at the end of the day, the only thing that provides personal protection for the person wearing the mask is a respirator. And that is the thing that healthcare workers should be wearing. Particularly if we're worried about the small aerosols, small particles that people will generate when they're infectious. And in fact, people generate particles, whether they're infectious or not. But particularly when they're infected and infectious, that will be present in the vicinity of a patient. The best protection in that case is for the healthcare worker to wear a respirator. And I've got asked a little bit to think about respirators for the community. You know, if we had a lot of respirators, that might be a good idea, but we don't have very many of them. And so, for the purposes of saving those respirators for the people who really need them, I recommended that the public not be wearing respirators and not be buying respirators.

***ICT*[®]: You did a deep dive into the literature. I saw you had many, many references. So, the mystery to me is why did the CDC say to people go out and wear cloth masks if you want to?**

Brosseau: What's interesting to me is if you look at the references that were listed on under their recommendation, none of them have anything to do with masks or the performance of masks or the performance of their filters or any of that. They're all references related to pre-symptomatic or asymptomatic transmission. I didn't get the message there entirely, but I was glad to see that they recognized that asymptomatic and pre-symptomatic transmission are happening. My message would have been if those were the references I was looking at, is maybe we should actually be encouraging people to stay home more. My biggest problem with telling people they can



wear masks is it gives you this false sense of security. And it might even encourage you to think that now you're protected and you're protecting people around you. My husband and I try to take a walk every afternoon, just to get out, get a little bit of fresh air and exercise. And I'm seeing more and more people now wearing cloth masks on the streets. And I don't go to stores anymore, but my understanding is they're wearing them there as well. I don't have a problem with people wearing them. I just want them to understand that they aren't very much more protective than if they weren't wearing them. And they're really not doing a whole lot of good for the people around them. So, we should continue to do social distancing as much as we possibly can. I have places that are saying that you actually have to wear them. I just think it's not recognizing that the mode of transmission for this organism is likely small aerosols. It shouldn't make you feel that you're not generating small particles because you still are. And since we none of us know if we're infected or infectious, many of us probably are and aren't going to have symptoms because we know that that's the case for at least some fraction of the population that we're putting everyone around us at risk. And especially the people I most care about are the workers. Our essential workers are really key to our success in flattening the curve. And they're the ones who make it possible for us to stay home and be isolated those of us who are privileged enough to have that opportunity. But we go out and think that we are doing something good for the public and the workers, and we're actually not. I think we put them at more risk. So, I don't understand the CDC's recommendations for this. My guess is that there's a lot of political pressure. And no government agency is entirely immune from political pressure. There's pressure to open, right? There's pressure to restart the economy. I understand that entirely. And so I think the feeling was, probably if we give everybody a mask, we can just reopen and everything's going to be fine. I think we're going to be shocked to find that that's not going to work. And I mean, I won't be shocked, but there will be lots of people who will be shocked. And in fact, I read an



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article recently about a funeral. A number of people who attended the funeral. They were all wearing masks. They were taking photos next to each other. They were talking and a number of people got infected.

ICT®: Have you gotten much feedback from healthcare workers or healthcare experts themselves?

Brosseau: Oh, yeah. There are a number who don't agree, but there are a lot of people who didn't agree with my first article about aerosol transmission either. I'm sort of used to it. The important thing is to say, here's what the science tells us. My conversations with people these days, I often point out that what we're seeing is a lot of magical thinking. A lot of wishful thinking. Cloth masks are wishful thinking. And people saying, well, they worked in Asia. There's no evidence that they worked in Asia. In fact, it's very clear that the healthcare workers in China, they may have been wearing cloth masks to start with, but when you look at pictures of what they were wearing later, they were wearing respirators. They were wearing full face gear and body gear and gloves. It was clear that even surgical masks weren't working in healthcare settings or controlling COVID-19. I don't understand it. The Asian countries wear masks for societal and cultural reasons, not because they actually think they're protecting. I'm not an expert in epidemiology. So, I will leave the modeling to those who know more about how this is going to work, but I do know my history. And if you read about the 1918 influenza and the pandemic, it took almost two years for that to be completely done

with. They did a lot of similar things. They closed down. They opened again. Then they had to close down and then they had to open again. Now, granted, they didn't have a lot of what we have today. But in some ways, we're not all that different from 1918. We don't have any testing. We don't have any contact tracing. They didn't either. They didn't even really know about that. They didn't know much about viruses. So, we have huge amounts of scientific information. But we have almost no infrastructure anymore in public health. Without our infrastructure in public health and our resources to do contact tracing and testing.... And testing, I mean with tests that really work that are both highly specific and highly sensitive. And we don't have any of those yet. In many ways we're being forced to make many of the same decisions that were made during the 1918 influenza pandemic. And the results are going to be similar. I know infection preventionists are often pulled in two directions. One is they have to worry about patients. The other is they have to worry about workers.

ICT®: Any final words about cloth masks?

Brosseau: I would really strongly encourage hospitals to stop asking people to send them cloth masks and instead asked for respirators. I don't necessarily discourage the public from wearing them if it makes them feel comfortable, but I hope they don't think that they're protecting themselves. [\[H\]](#)

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